

IN THE SPECIFICATION

Kindly replace the following paragraphs in the Specification with the following rewritten paragraphs:

[0031] A modulator 214 in the base station 102 receives coded pilot and traffic signals from the transmit data processor 212, and further processes the received data to generate modulated data. For some CDMA systems, processing by the modulator 214 includes: (1) covering the coded pilot and traffic signals with different channelization codes and thereby channelizing the pilot and traffic signals onto their respective channels; and (2) spreading the channelized pilot and traffic signals. In IS-95 and cdma2000 the channelization codes are Walsh codes, and in W-CDMA the channelization codes are orthogonal variable spreading factor (OVSF). Scrambling codes are complex pseudo-noise (PN) sequences used to spread the transmitted signal across a wider bandwidth. In ~~IS-92~~ IS-95 and cdma2000 the scrambling codes used by a particular base station are at a fixed phase offset from scrambling codes used by other base stations so that a receiver can distinguish one base station from another. In W-CDMA a different unique, scrambling code is used by each base station. “Covering” with a Walsh code in IS-95 and cdma2000 is equivalent to “spreading” with an OVSF code in W-CDMA, and “spreading” with the PN sequence in IS-95 and cdma2000 is equivalent to “scrambling” with a scrambling sequence in W-CDMA.

[0048] The pilot demodulator 326 may perform coherent demodulation of the discovered traffic data symbols from the symbol accumulator 324 with the pilot estimates from the pilot filter 336 and provides demodulated symbols to a symbol combiner 340. Coherent demodulation can be achieved by performing a dot product and a cross product of the discovered data symbols with the pilot estimates. The dot and cross products effectively perform a phase demodulation of the data and also scale the resultant output by the relative strength of the recovered pilot. By scaling with the relative strength of the received pilots, each of the finger processors 310 effectively ~~weight~~ weigh the contributions from different multipath instances in accordance with the quality of the multipath instances for efficient combining. Thus, the dot and cross products perform the dual roles of phase projection and signal weighting that are characteristics of a coherent rake receiver.

[0059] Within the FIR filter 410, the received pilot symbols, x_n , are provided to a set of series-coupled delay elements 412b through 412m. The received pilot symbols, x_n , and the outputs of the delay elements 412b through 412m are respectively provided to multipliers 414a through 414m, which also receive coefficients w_0^k through w_{N-1}^k respectively. Each of the multipliers receive the pilot symbol, or a delayed version of the pilot symbol, and multiplies the pilot symbol with the received coefficient and thereby provides a scaled symbol to a summer 416. The summer 416 adds the scaled symbols from all the multipliers to provide the filtered pilot estimate, y_n . The filtered pilot ~~symbol~~ estimate from the FIR filter 410 may be expressed as:

$$y_n = \sum_{i=0}^{N-1} w_i^k \cdot x_{n-i} \quad . \quad \text{Eq. (1)}$$